In the Claims:

1. (Original) A vehicle control system adapted for mounting on a primary vehicle for detecting the approach of another vehicle to perform a collision avoidance action, comprising:

capturing means for capturing an external image viewed from the primary vehicle;

template memory means for storing templates for detecting the approach of the another vehicle;

template update means for updating the templates when a brake pedal is pressed by a driver;

recognizing means of comparing the external image with the updated template and calculating an evaluation value to determine whether the another vehicle approaches the primary vehicle based on the result of said comparing; and

instruction means for instructing the vehicle to perform the collision avoidance action when said evaluation value exceeds a threshold value.

2. (Original) The vehicle control system according to claim 1, wherein said template is composed of a plurality of sub-regions, each of said sub-regions having an eigen value.

3. (Original) The vehicle control system according to claim 2, wherein said recognizing means compares the image with the template for each sub-region

to calculate a similarity factor of each sub-region, wherein said recognizing means calculates optical flows based on the image and multiplies said similarity factor by said optical flows to calculate a feature value for each sub-region, and wherein said recognizing means adds all of the feature values and weights assigned to sub-regions to calculate said evaluation value.

4. (Original) The vehicle control system according to claim 3, wherein said eigen value is a pixel intensity value, and wherein said similarity factor is calculated by comparing an arithmetic mean value of the pixel intensity values contained in each sub-region of the image with the eigen value of each sub-region of the template.

5. (Original) The vehicle control system according to claim 4, wherein said template memory means stores a template set composed of a template with a positive weight and a template with a negative weight.

6. (Original) The vehicle control system according to claim 5, wherein said template set includes three different sets for turning left / right or traveling straight depending on traveling direction of the primary vehicle, wherein said template update means updates the template in the template set corresponding to traveling direction of the vehicle, and wherein said recognizing means calculates said evaluation value with respect to the template in the template set corresponding to the traveling direction of the vehicle.

7. (Original) The vehicle control system according to claim 6, wherein said template update means increases the weight for the sub-region containing approach information of said another vehicle, and wherein said template update means updates the template so that the eigen value of said sub-region gets close to the value of the corresponding sub-region in the image.

8. (Currently Amended) The vehicle control system according to ~~any of claims 1 to 7~~ claim 1, wherein said collision avoidance action includes forcibly closing a throttle valve of a brake system of the vehicle.

9. (Original) A vehicle control program product for detecting the approach of another vehicle to a primary vehicle, said program performing a collision avoidance action when executed on a computer, comprising:

capturing an external image viewed from the primary vehicle;

comparing the external image with a template prepared for detecting the approach of the another vehicle;

calculating an evaluation value to determine whether the another vehicle approaches the primary vehicle based on the result of said compairing;

instructing the primary vehicle to perform the collision avoidance action when said evaluation value exceeds a threshold value; and

updating said template when a brake pedal is pressed by a driver.

10. (Original) The vehicle control program product according to claim 9, wherein said template is composed of a plurality of sub-regions, each of said sub-regions having an eigen value.

11. (Original) The vehicle control program product according to claim 10, wherein said comparing includes comparing the image with the template for each sub-region to calculate a similarity factor of each sub-region, wherein said calculating includes calculating optical flows based on the image and multiplying said similarity factor by said optical flows to calculate a feature value for each sub-region, and wherein said calculating process further includes adding all of the feature values and weights assigned to sub-regions to calculate said evaluation value.

12. (Original) The vehicle control program product according to claim 11, wherein said eigen value is a pixel intensity value, and wherein said similarity factor is obtained by comparing an arithmetic mean value of the pixel intensity values contained in each sub-region of the image with the eigen value of each sub-region of the template.

13. (Original) The vehicle control program product according to claim 12, wherein said template is stored as a template set composed of a template with a positive weight and a template with a negative weight.

14. (Original) The vehicle control program product according to claim 13, wherein said template set includes three different sets for turning left / right or traveling straight depending on traveling direction of the primary vehicle, wherein said updating includes updating the template in the template set corresponding to traveling direction of the primary vehicle, and wherein said calculating includes calculating said evaluation value with respect to the template in the template set corresponding to the traveling direction of the primary vehicle.

15. (Original) The vehicle control program product according to claim 14, wherein said updating includes increasing the weight for the sub-region containing approach information of said another vehicle, and wherein said updating further includes updating the template so that the eigen value of said sub-region gets close to the value of the corresponding sub-region in the image.

16. (Currently Amended) The vehicle control program product according to ~~any of claims 9 to 15~~ claim 9, wherein said collision avoidance action includes forcibly closing a throttle valve of a brake system of the vehicle.

17. (Original) A vehicle control method for detecting the approach of another vehicle to a primary vehicle to perform a collision avoidance action, comprising the steps of:

capturing an external image from the primary vehicle;

comparing the external image with a template prepared for detecting the approach of the another vehicle;

calculating an evaluation value to determine whether the another vehicle approaches the primary vehicle based on the result of said comparing;

instructing the primary vehicle to perform the collision avoidance action when said evaluation value exceeds a threshold value; and

updating said template when a brake pedal is pressed by a driver.

18. (Original) The vehicle control method according to claim 17, wherein said template is composed of a plurality of sub-regions, each of said sub-regions having an eigen value.

19. (Original) The vehicle control method according to claim 18, wherein said comparing step includes comparing the image with the template for each sub-region to calculate a similarity factor of each sub-region, wherein said calculating step includes calculating optical flows based on the image and multiplying said similarity factor by said optical flows to calculate a feature value for each sub-region, and wherein said calculating step further includes adding all of the feature values and weights assigned to sub-regions to calculate said evaluation value.

20. (Original) The vehicle control method according to claim 19, wherein said eigen value is a pixel intensity value, and wherein said similarity

factor is obtained by comparing an arithmetic mean value of the pixel intensity values contained in each sub-region of the image with the eigen value of each sub-region of the template.

21. (Original) The vehicle control method according to claim 20, wherein said template is stored as a template set composed of a template with a positive weight and a template with a negative weight.

22. (Original) The vehicle control method according to claim 21, wherein said template set includes three different sets for turning left / right or traveling straight depending on traveling direction of the primary vehicle, wherein said updating step includes updating the template in the template set corresponding to traveling direction of the primary vehicle, and wherein said calculating step includes calculating said evaluation value with respect to the template in the template set corresponding to the traveling direction of the primary vehicle.

23. (Original) The vehicle control method according to claim 22, wherein said updating step includes increasing the weight for the sub-region containing approach information of said another vehicle, and wherein said updating step further includes updating the template so that the eigen value of said sub-region gets close to the value of the corresponding sub-region in the image.

24. (Currently Amended) The vehicle control method according to ~~any of claims 17 to 23~~ claim 17, wherein said collision avoidance action includes forcibly closing a throttle valve of a brake system of the vehicle.